

## ABSTRACT OF THE DISCLOSURE

3 Systems and methods of generating and manipulating an ultrasound beam are disclosed. The  
4 methods include using selective sets of ultrasound elements to generate an ultrasound beam,  
5 scanning the beam over a series of ultrasound elements in order to collected echo data covering  
6 an area, and generating an image from the resulting data. The scanning process includes shifting  
7 the set of ultrasound elements used to form the ultrasound beam by more then one ultrasound  
8 element (block-switching) between each step in the scanning process. This is accomplished  
9 without loss of image resolution by using area-forming techniques. The block-switching  
10 technique enables use of cross-correlation methods during image construction.